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APPARATUS, SYSTEMS AND METHODS FOR ONLINE,  
MULTI-PARCEL, MULTI-CARRIER, MULTI-SERVICE  
PARCEL RETURNS SHIPPING MANAGEMENT

FIELD OF THE INVENTION

The field of the present invention is computer systems for shipping management, and specifically online computer systems for  
10 parcel returns shipping management.

BACKGROUND OF THE INVENTION

The disclosures of U.S. Provisional Patent Application, Serial No. 60/158,179 attorney docket number 36075/DBP/I249, U.S.  
15 Provisional Patent Application Serial No. 60/170,186 attorney docket number 36618/DBP/I249, and U.S. Provisional Patent Application Serial No. 60/170,504 attorney docket number 36619/DBP/I249 are incorporated for all purposes herein by reference as if fully stated here.

20 Electronic commerce (sometimes referred to herein as "eCommerce") is a growing sector of the U.S. and world economy. According to one research group, Jupiter Research, eCommerce in the United States is set to rise to \$41 billion by 2002, up from \$12 billion in 1999. According to another research group,  
25 Forrester Research, consumer eCommerce sales are expected to hit \$108 billion in 2003, up from \$4 billion in 1998.

As the number of Internet transactions grow, eCommerce-related parcel shipping traffic grows with an estimated 640 million shipments in 1999, up from 240 million in 1998.

30 As with traditional brick and mortar purchases, eCommerce purchasers sometimes desire to return one or more of the items purchased. Of the items purchased using eCommerce, estimates of an average return rate range from 5% of sales (according to an August 1999 study by Boston Consulting in conjunction with  
35 Shop.org E-Commerce reported in the New York Times (August 23,

1999) to 10% and growing as low-return rate merchandise like books and CDs are joined online by higher return-rate merchandise like apparel. Online return rates for apparel may reach 20-30%.

Even though a significant portion of eCommerce-purchased items will be returned, a study by Jupiter Communications concluded that returning eCommerce-purchased merchandise is one of the highest sources of eCommerce consumer dissatisfaction. Approximately 40% of Internet shoppers surveyed indicated that they would buy more online if they could return items easily.

Electronic Commerce returns and exchange processing has been inefficient for both the consumer and the online merchant. Electronic Commerce consumers have experienced slow, inconvenient, clumsy returns and exchange processes online. The experience contrasts sharply with consumer expectations that returning a product online should be as easy as ordering it online.

Many eCommerce merchandisers use a return authorization system. Unfortunately, return authorizations are often difficult for the consumer to obtain and take a long time to receive. Many online stores require customers to call a customer service center to request a return authorization. Calling customer service for a return authorization is inconsistent with an online shopper's preference for doing business online.

Some online merchants, on the other hand, require shoppers to compose a return email request. As yet another alternative, some online merchants provide return instructions on the back of a packing slip, but may not accept return of every item in the shipped order. After authorizing a return, the online merchant mails out an Authorized Return Service label, such as a UPS Authorized Return Service label. This return authorization process results in a slow return and refund or exchange.

Refunds for returned items are often cumbersome and can take weeks to appear in the returning shopper's payment card accounts.

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Exchange requests can take even longer, especially if the exchange item is out of stock.

5 Once a return is authorized and the customer has all of the necessary paper work, returning the item is not necessarily an easy matter for the consumer. Even if the returning customer has retained the box and packing materials for the item to be returned, most online stores do not provide an easy way for  
10 customers to pass the return package to a carrier. Some merchants provide UPS call tags inside each box they ship.

It is often more convenient for customers to return or exchange merchandise at a brick and mortar store. However, physical stores may not accept returns from their online  
15 siblings.

Returns are also a problem for online merchants. An inefficient returns and exchange process can cause individual customer dissatisfaction resulting in online shopper defection to online stores that provide higher-quality return and exchange  
20 services.

The various methods of providing returns and exchange services is inefficient for both the merchant and the returning consumer. Processing return and exchange requests by telephone requires the online merchant to provide expensive facilities, staff, and training. Furthermore, a customer service call center  
25 cannot match the convenience of the Internet for an online shopper. Return requests by email, telephone, and paper forms are collected with manual processes and/or in non-standard formats. This makes generating returns reports an expensive data-  
30 collection chore which is subject to the judgment of individual customer service reps.

Traditional manual returns and exchange processes do not provide online merchants with returns information in a timely manner. For example, merchants may not know a return is coming  
35 until the returned package arrives. The return might be due to

defective merchandise or poor packaging that caused breakage. While the first return shipment is in transit, the merchant  
5 continues to ship defective or poorly-packaged merchandise.

Each online merchant has its own policy regarding returns and exchange processing. For example, many merchants are willing to pay for all return shipping to provide high-quality service. Other merchants are willing to pay for some return shipments, but  
10 not for expensive or ill-justified returns. Still other merchants want to accept all or some returns but are not willing to pay for their return shipment.

According to one commentator, "[t]here's no easy way to solve the problem [of returns]. Internet companies fall apart on this."  
15 (Melissa Barnes, The Yankee Group, in Internet World, August 15, 1999.) Therefore, in order for eCommerce to prosper, a solution to managing eCommerce returns must be provided.

#### SUMMARY OF THE INVENTION

20 The present invention provides a computer system (the "System", or the "Return System") that is configured and programmed to provide online stores with a fast, simple, convenient way for eCommerce customers of an online store to return merchandise purchased from that store from within that  
25 online store.

Each Merchant that wants to offer its customers with in-store access to the Return System 1 first accesses the User Interface of the System to set up the Merchant's Account, and to establish rules governing the Merchant's returns, exchanges and  
30 refunds policy. The Return System 1 then provides a User Interface in the Merchant's online store to the Merchant's customers with which to facilitate the return shipping of merchandise.

The System provides each online store (sometimes referred  
35 to herein as eCommerce Provider or Merchant) with the capability

to specify the store's individualized returns, exchange, and refund policies. The System enforces a consistent, standardized, and automated returns policy for each online store.

Among the returns policy options available through the System, customers can be issued an immediate, automated return authorization. Other returns policy options allow each online store to specify whether or not shipping charges are to be paid by the store or by the customer. The System further provides customers with the ability to print a return shipping label on a printer attached to the customer's personal computer directly from the online store.

The System provides for the return of items to different locations, including the online store's main warehouse, to secondary facilities, or to sibling retail locations.

The System further provides for the return of items through multiple carriers or through retail shippers, such as Mail Boxes Etc., thereby offering customers choices and insulating the online store from carrier labor strikes.

In the Merchant's online store, a customer makes a purchase, which is subsequently shipped to the customer (the "Consumer"). The Consumer if dissatisfied with the ordered item, wants to return it. To do so, the Consumer returns to the Merchant's online store, accesses the Consumer's order history for that Merchant, and arranges to return the item or items from the Merchant's online store.

The System collects, according to each online store's specification, consumer reasons for returning items and stores this information in a centralized database of return information. The System analyzes and reports the return data, and issues refunds to customers in accordance with the online store's refund policy.

The Return System 1 provides each participating Merchant with tracking capabilities for returned parcels. The Return

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System provides notification and tracking reports for inbound returns, allowing the store to prepare its receiving dock, and  
5 to respond to the return reason if appropriate such as by adjusting inventory or shipping practices to avoid continued potential for returns.

Because return shipping is arranged from within the online store, the System provides the returning consumer with the  
10 ability to immediately convert a return to an exchange, or into an additional order.

In one embodiment, the present invention is a web-based application service from a common provider, sometimes referred to herein as "iShip.com", and does not require the individual  
15 online store to install or manage any server software.

#### DESCRIPTION OF THE DRAWINGS

FIG. 1 is a graphic representation depicting the interface relationships provided by the System of the present invention  
20 between electronic Commerce providers, Consumers, and Carriers;

FIG. 2 is a graphic representation depicting an exemplary user computer configuration and the computer's interface with an eCommerce Provider and the System;

FIG. 3a is a graphic representation of an exemplary  
25 configuration of the System, and relationships with Carriers and eCommerce Providers;

FIGS. 4a through 4c are high level logic flow diagrams depicting an exemplary Merchant experience within an exemplary embodiment of the Return System;

30 FIG. 5 is a graphic representation depicting an exemplary main menu and an exemplary submenu hierarchy in an exemplary embodiment of the invention;

FIG. 6 is a graphic representation depicting an exemplary Log On Screen in an exemplary embodiment of the Return System;

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FIG. 7 is a graphic representation depicting an exemplary Return System home page in an embodiment of the Return System;

5 FIG. 8 is a graphic representation of an exemplary Company Information Screen in an exemplary embodiment of the invention;

FIG. 9 is a graphic representation of an exemplary User Administration Screen in an exemplary embodiment of the invention;

10 FIG. 10 is a graphic representation of an exemplary User Administration Screen in an exemplary embodiment of the invention;

FIG. 11 is a graphic representation of an exemplary Standard Policy Screen in an exemplary embodiment of the invention;

15 FIG. 12 is a graphic representation of an exemplary Return Shipping Options Screen in an exemplary embodiment of the invention;

FIGS. 13a through 13d are graphic representations of an exemplary Return Questions/Responses Page in an exemplary embodiment of the invention;

20 FIG. 14 is a graphic representation depicting an exemplary configuration of Follow Up Actions corresponding to a particular Return Response for a particular Answer Choice for a particular Question in an exemplary embodiment of the invention;

25 FIG. 15 is a graphic representation of an exemplary Policy Exceptions Screen in an exemplary embodiment of the invention;

FIG. 16 is a graphic representation depicting an exemplary first screen of the Exception Categories Page in an exemplary embodiment of the invention;

30 FIGS. 17a and 17b are graphic representations of exemplary Store Categories Screens in an exemplary embodiment of the invention;

FIGS. 18a and 18b are graphic representations of exemplary Web Page Configuration Screen in an exemplary embodiment of the invention;

FIG. 19 is a graphic representation of an exemplary Email Responses Screen in an exemplary embodiment of the invention;

5 FIGS. 20a through 20c are logic flow diagrams depicting an exemplary high level logic flow for a Consumer's experience with an exemplary embodiment of the Returns System of the present invention from within a Merchant's Online store;

10 FIG. 21 is a graphic representation of an exemplary Order History display for a particular Customer in a particular Merchant's Online store;

FIG. 22 is a graphic representation of an exemplary Order Summary Screen for a particular Order Number for a particular Consumer from within a particular Merchant's Online store in an exemplary embodiment of the invention;

15 FIG. 23 is a graphic representation depicting an exemplary Returns Service Screen in an exemplary Merchant's Online store in an exemplary embodiment of the invention;

FIG. 24 is a graphic representation of an exemplary Returns Service Return Reason Screen in an exemplary embodiment of the invention;

FIG. 25 is a graphic representation of an exemplary Return Summary Screen in an exemplary embodiment of the invention;

25 FIG. 26 is a graphic representation depicting an exemplary Label Create Screen in an exemplary embodiment of the invention;

FIG. 27a is a graphic representation of an exemplary shipping label for a package for an item to be returned in an exemplary embodiment of the invention;

30 FIG. 27b is a flow diagram depicting an exemplary logic flow for printing of bar-coded shipping labels in an exemplary embodiment of the invention;

FIG. 27c is a flow diagram depicting an exemplary logic flow for printing of dimensionally accurate images in an exemplary embodiment of the invention;



FIG. 28 is a graphic representation of an exemplary shipping label displayed as a Shipping Label Screen in an exemplary embodiment of the invention;

FIG. 29 is a graphic representation of an exemplary Return Shipped e-mail to a Merchant in an exemplary embodiment of the invention;

FIG. 30 is a graphic representation of an exemplary Return Shipped e-mail to a Consumer in an exemplary embodiment of the invention;

FIG. 31 is a graphic representation depicting an exemplary Returns Service Screen in an exemplary Merchant's Online store in an exemplary embodiment of the invention;

FIG. 32 is a graphic representation of an exemplary Returns Service Return Reason Screen in an exemplary embodiment of the invention;

FIGS. 33-35 are graphic representations depicting exemplary Consumer Shipping Preferences Specification Screens in an exemplary embodiment of the invention;

FIG. 36a is a graphic representation depicting an exemplary Dynamically Dimensioned Multi-Carrier, Multi-Service Graphic Array online display in an exemplary embodiment of the invention;

FIGS. 36b through 36e are high level data retrieval and logic flow diagrams depicting the data and high level logic that the system uses to calculate a shipping rate in an exemplary embodiment of the invention;

FIG. 37 is a graphic representation depicting an alternative exemplary Dynamically Dimensioned Multi-Carrier, Multi-Service Graphic Array online display in an exemplary embodiment of the invention;

FIG. 38 is a graphic representation depicting an exemplary Shipping Summary Screen in an exemplary embodiment of invention;

FIGS. 39a through 39c are simplified flow diagrams depicting the initial Timing and Rating procedure to generate a Graphic Array in an exemplary embodiment of the invention;

FIG. 40 is a graphic representation depicting an exemplary Items Ordered Screen in an exemplary embodiment of the invention;

FIG. 41 is a graphic representation depicting an exemplary Tracking Information Screen in an exemplary embodiment of the invention;

FIG. 42 is a graphic representation depicting an exemplary Items Ordered Screen in an exemplary embodiment of the invention;

FIG. 43 is a graphic representation depicting an exemplary Track Your Package screen in an exemplary embodiment of the invention;

FIG. 44 is a graphic representation depicting an exemplary completed Track Your Package screen in an exemplary embodiment of the invention;

FIG. 45 is a graphic representation depicting an exemplary alternative Tracking Information Screen in an exemplary embodiment of the invention;

FIG. 46 is a graphic representation depicting an exemplary View Inbound Return Shipments Screen in an exemplary embodiment of the invention;

FIG. 47 is a table depicting exemplary menus for each of the tracking criteria in an exemplary embodiment of the invention;

FIG. 48 is a graphic representation of an exemplary View Inbound Return Shipments Detail Screen in an exemplary embodiment of the invention; and

FIG. 49 is a graphic representation depicting an exemplary Reporting, Graphs and Data Export Generation Screen in an exemplary embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

5 The computer System of the present invention provides a plurality of online eCommerce Merchants with a single User Interface ("UI") with which each eCommerce Merchant can provide the Merchant's Consumers with an automated return parcel management system for a plurality of supported Carriers.

10 There are two primary aspects of the invention, the Returns Manager for the Merchant's "Back Office", and Customer Returns.

Returns Manager for the Merchant's Back Office is an integrated set of tools with which the Merchant can: 1.) View inbound returning merchandise shipments in summary or in detail; 2.) Track shipments for multiple carriers with only one tracking  
15 number; 3.) Analyze return patterns and trends; 4.) Administer the returns process; 5.) Setup account names and access privileges; 6.) Establish the parameters for automatic enforcement of their store's return policy; 7.) Build return shipping options; 8.) Build questions to determine why customer  
20 is returning merchandise; 9.) Build return policy exceptions; 10.) Build automated Email responses; 11.) Build integration links between merchant's site and Returns Manager

Different types of embodiments for the Customer Returns features of this invention include, among others: 1.) a Customer  
25 Returns Desktop application with a Returns Back Office application; 2.) Customer Returns Integrated - a web enabled application and user interface integrated into the Merchant's site; and 3.) Customer Returns API - Application Programming Interfaces written, e.g., in XML designed to pass data for  
30 integration into the Merchant's site.

Each of the different types of embodiments of the invention give the Merchant an automated returns functionality including such features, among others, as: 1.) a step-by-step "wizard" (user interface software) that leads each customer through the  
35 merchandise return process; 2.) a return policy established with

the Returns Manager for the Back Office application; 3.) automatic enforcement of return policy rules; 4.) supports both merchant and customer paid return shipping scenarios; 5.) customer (Consumer) tracking of returned merchandise via multiple carriers; and 6.) automatic feed of shipment data to the Returns Manager for the Back Office application.

FIG. 1 is a graphic representation depicting the interface relationships provided by the System 1 of the present invention between a plurality of electronic Commerce providers ("Merchants") 2a-2n, Consumers 3a-3n, and Carriers 4a-4n.

It should be noted that the use of suffixes such as "a" through "n" in connection with numbered elements of the FIGURES herein are exemplary and are not a limitation of the invention. Rather, the suffixes "a" through "n" are used to represent a plurality, but unknown number, of similar elements.

As conceptually depicted in FIG. 1, a Consumer, e.g., 3a that has purchased merchandise from an online Merchant, e.g., 2a, can visit the online Merchant's store, e.g., 2a, to arrange to return an item of merchandise. The online Merchant's store 2a provides the Consumer 3a with access to the Return System 1 through which the Consumer interfaces with supported Carriers 4a through 4n. Carriers supported by the System include Carriers such as Airborne, FedEx, United Parcel Service, USPS, and Yellow Freight. The System 1 is completely expandable and scalable to include additional Carriers.

As depicted in FIG. 2, each User 7 (which may be either a Merchant or a Consumer) has access to a computer 8, for instance a personal computer ("PC"). The computer 8 is configured with a display device 9 that provides a display screen 10. The computer 8 is further configured with one or more user input devices, such as, for example, a keyboard 11 and a mouse 12. The computer 8 is also configured with a printing device 13, such as a laser printer.

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Users access and browse the Internet 15 using a web browser 14 that generally resides and is executed on the user's PC 8. 5 The web browser 14 allows the Shipper/User 7 to retrieve and render hyper-media content from one or more of a Merchant's Server computers, e.g., 16. Commercially available web browsers include, e.g., Netscape's Navigator™ and Microsoft Internet Explorer™. The Merchant's Server computer 16 is linked to the 10 Return Shipping System Server 17.

FIG. 3 is a graphic representation depicting an exemplary view of the System Data Center and its interfaces with Consumer computers 8a-8n, Carrier Server computers 23-2 through 27-2, and eCommerce/eAuction Providers/Merchants 28a-28n, via the Internet 15. When a Consumer returns a package using the System 1, one or more of the System's Servers, e.g., 21a-21n create a new System tracking number. When a new System tracking number is created, one of the System's Database Servers, e.g., 20a-20n, adds a new package record with the newly created System tracking number to 20 a Package Table 28 that resides in the System database 22 and contains package records for System processed packages. An exemplary embodiment of the Package Table contains the following information: 1) Package Tracking State ID; 2) Package Shipping State ID; 3) Actual Delivery Time; 4) Delivered To information; 25 5) Shipping Date; 6) Carrier Tracking Number; 7) System Tracking Number; 8) Carrier ID; 9) Actual Package Weight; 10) Service Description; and 11) Package OID. The content of these fields are described further below.

Using the Carrier's Internet URL, the System 1 then makes an 30 HTTP connection to the Carrier's web server, e.g., 23-2, using URL information for the particular Carrier's web server. Depending upon the Carrier, the System's 1 request and report interface with the Carrier's web server is programmed in HyperText Markup Language ("HTML"), Extensible Markup Language 35 ("XML"), or both HTML and XML.

In one embodiment, the Returns Manager for the Back Office product requires Microsoft's Internet Explorer version 5.01 or higher; the Customer Returns software requires either Netscape version 4.0 or Internet Explorer version 4.0 or higher.

A. RETURNS MANAGER - MERCHANT ADMINISTRATION

FIGS. 4a through 4c are high level logic flow diagrams depicting an exemplary Merchant experience within an exemplary embodiment of the Return System. An exemplary embodiment of the Return System provides a high level menu from which each Merchant can access the Return System. FIG. 5 is a graphic representation depicting an exemplary main menu and an exemplary submenu hierarchy in an exemplary embodiment of the invention. It will be understood by one with ordinary skill in the art that menus such as the one depicted in FIG. 5 provide the Merchant/User with direct, as opposed to serial, access to the available functions. It will be further understood by one with ordinary skill in the art, therefore, that the high level logic flow depicted in FIGS. 4a through 4c is illustrative, is not a limitation of the invention, and does not impose serial access to the Merchant functions described.

As depicted in FIG. 4a, the Merchant logs on 100 to the Return System. FIG. 6 is a graphic representation depicting an exemplary Log On Screen in an exemplary embodiment of the Return System. The Merchant/User is asked to provide an e-mail/User ID 120 and Password 121 and to click on the onscreen Continue button 122. If the Merchant/User enters an e-mail/User ID 120 and a Password 121, the Return System validates the security information against security information contained in the System databases 22. If the Merchant-supplied security information is valid, the Return System displays the Return System home page and main menu; otherwise, the Return System notifies the Merchant/User that the security information supplied is incorrect.

The Merchant/User is instructed how to locate a forgotten password 123-1 or to otherwise recover a forgotten password by pressing the onscreen Recovery button 123-2. If the Merchant/User presses the onscreen Recovery button 123-2, the Return System searches the Return System's databases 22 for the Merchant-supplied e-mail/User ID; if found, the Return System pulls the password associated with the e-mail/User ID and e-mails the designated e-mail address with the password and notifies the Merchant/User to check its e-mail for the password. If the Return System does not locate the Merchant-supplied e-mail/User ID, then it notifies the Merchant accordingly.

If the Merchant/User is altogether new to the Return System, the Merchant/User is instructed to apply 124-1 by clicking on the onscreen Apply button 124-2. In the Application procedure, the Merchant/User is required to identify the Merchant's company name, web site URL, credit information, payment information, such as credit card number and expiration date, "online store" return locations, physical retail store return locations. Once the application information is verified, a password is assigned to the Merchant and the Return System composes and sends an e-mail to the Merchant containing notification of the assigned password. Once the Merchant/User has a valid password, the Merchant/User can Log On to the Return System to set up the Merchant's Account.

Returning to FIG. 4a, once the Merchant has logged on, the Return System displays a home page with a main menu. FIG. 7 is a graphic representation depicting an exemplary Return System home page in an embodiment of the Return System. The main menu provides a menu selection for returning the Merchant to the Merchant's own web site 130. The Return System supplies the Merchant web site menu selection with the web site URL provided by the Merchant User during the Application procedure described above.

5 The main menu provides a menu selection for the Returns Manager 131. The submenu selections for the Returns Manager are depicted in the body 135 of the home page depicted in FIG. 7. The submenu selections for the Returns Manager are the default display for the Return System home page; they are also displayed when the Returns Manager menu item 131 has been selected.

10 The main menu further provides menu selections to Log Out 132, to request Help text 133, and to link to a main shipping system web site 134.

Returning to FIG. 4a, once a Merchant/User has successfully logged in to the Return System, the home page 101 is displayed as depicted in FIG. 7. A newly accepted Merchant/User must complete Account Setup 102 by supplying such information as Company Information 103, User Administration information 104, and Return Center information 105. Account Setup information is saved in the Systems Databases 22 such as in an Account Database 106.

20 Returning to FIG. 7, if the Merchant/User selects the Company Information selection item 103, the Return System displays a Company Information Screen. FIG. 8 is a graphic representation of an exemplary Company Information Screen in an exemplary embodiment of the invention. In the Company Information Screen, the Merchant/User is prompted to supply the Company Name 140, Logo URL 141, color preference 142, and Customer Service contact information 143.

Returning to FIG. 7, if the Merchant/User selects the User Administration selection item 104, the Return System displays a User Administration Screen. FIG. 9 is a graphic representation of an exemplary User Administration Screen in an exemplary embodiment of the invention. In the User Administration Screen, the Merchant/User is prompted to identify User Names and associate those names with User ID's 145. The Merchant/User is also prompted to define User Names for those who should be



allowed each access privilege level 150. For example, the Merchant/User is prompted to define one or more User Names  
5 authorized to perform Return Monitor privileges 146; one or more User Names authorized to perform Return Policy Builder privileges 147; and one or more User Names authorized to perform Account Setup privileges 148. The Merchant/User is also prompted to identify eMail contacts and telephone numbers for User Names 149.

10 Returning to FIG. 7, if the Merchant/User selects the Return Centers selection item 105, the Return System displays a Return Centers Screen. FIG. 10 is a graphic representation of an exemplary User Administration Screen in an exemplary embodiment of the invention. The Return System prompts the Merchant User to  
15 enter information concerning one or more Return Centers. Return Center information includes, for example, the Center Name 151, an Attention name 152, one or more Address lines 153, city state and zip code 154, country 155, and telephone number 156.

As depicted in FIG. 4b, once the Merchant/User has provided  
20 Account Setup information, the Merchant/User can define to the Return System the Merchant's Return Policy 107. In the Return Policy Builder 107, the Merchant/User provides Standard Policy information 108, Return Shipping Options 109, Return Questions 110, Policy Exceptions 111, Web Page Configuration information  
25 112 and eMail Responses 113. Return Policy information is saved in the System Databases 22 such as in the Account Database 106.

Returning to FIG. 7, if the Merchant/User selects the Standard Policy menu item 108, the Return System displays a Standard Policy Screen. FIG. 11 is a graphic representation of  
30 an exemplary Standard Policy Screen in an exemplary embodiment of the invention. The Return System provides the Merchant/User with a Policy Overview Statement window 160 in which to describe the Merchant's overall return policy. The Return System will display the text from the Merchant's Policy Overview Statement at the  
35 beginning of each customer's returns processing. The Policy

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Overview Statement window 160 can accept text, e.g., 160-3 only, or can process HTML commands imbedded within the text, e.g., 160-1 and 160-2, to format the text for eventual presentation to the Merchant's online customers. The Merchant/User can navigate through the Policy Overview Statement window 160 using up 161-1 and down 161-2 scroll buttons. The Merchant/User can preview the formatted text of the Policy Overview Statement by pressing an onscreen Preview button 162.

The Merchant/User defines the window of time in which the Merchant will accept a return ("Return Window") 167 by entering a time frame 163 and a reference event 165. The Return System provides a scroll down menu of time frames which the Merchant/User accesses by pressing the time frame scroll down menu button 164. The Return System also provides a scroll down menu of acceptable reference events which the Merchant/User accesses by pressing the reference event scroll down menu button 166. The Merchant/User selects a time frame and/or a reference event by placing the cursor on the desired choice and clicking. With respect to a time frame, if none of the time frames listed in the time frame scroll down menu match the Merchant's refund window policy, then the Merchant/User can enter the appropriate number in days. The Return Window 167 selections described above are exemplary and are not a limitation of the invention. In an alternative embodiment, the Return System provides for the definition of a Return Window scale from which a partial refund can be calculated. For example, an item returned within 30 days results in a full refund; an item returned after 30 days but prior to the expiration of 60 days results in a 75% refund; an item returned after 60 days but prior to the expiration of 90 days results in store credit only.

The Merchant/User defines the Merchant's Refund Method 168 by selecting one of the Refund Method choices: Refund 169; Store Credit Only 170; or Choice of Refund or Store Credit 171. The

Refund Method choices described above are illustrative and not a limitation of the invention. Some alternative embodiments of the Return System provide additional choices, including a partial refund choice the calculation for which (Refund Amount 172) can be defined by the Merchant to be dependent upon factors such as the actual return time frame as compared to a Return Window scale.

10 The Merchant/User defines the Merchant's Refund Amount calculation method 172 by identifying the components of the original charges that will be included in the refund: Price of Item 173; Tax on Item 174; and/or Original Shipping Charge 175. The Refund Amount calculation method 172 described above is  
 15 illustrative and not a limitation of the invention. In an alternative embodiment, the Return System provides additional components that can be defined by the Merchant/User to modify the amount refunded. For example, a percentage can be chosen and entered with which to reduce refunds made for returns made after  
 20 30 days. Further, the above described Refund Policy components pertain to the Merchant's standard general policy. In an alternative embodiment, the Merchant/User can additionally define Return, Refund and Exchange policies at lower levels, such as at a product category definition level. Additionally, in an  
 25 alternative embodiment of the invention, the Return System provides the ability to recognize "Sale" items and override standard general and/or product category level policies with a "Sales" policy (such as one that requires no refund for final sale items).

30 Once the Merchant/User defines the Merchant's Return Policy, the Merchant/User can save the Policy definition by clicking the onscreen Save button 177. The Merchant/User can cancel the definition by clicking the onscreen Cancel button 176.

Returning to FIG. 7, if the Merchant/User selects the Return  
 35 Shipping Options menu item 109, the Return System displays a

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Return Shipping Options Screen. FIG. 12 is a graphic representation of an exemplary Return Shipping Options Screen in  
5 an exemplary embodiment of the invention.

Using the Return Shipping Options Screen, the Merchant/User defines the Return Locations 180 to which items can be returned. The Merchant can allow returns to the online store by checking the Online Only item 181 and by selecting a primary return center  
10 182 from a scroll down menu of return centers accessible by clicking a scroll down menu button 183. The Return System builds the menu of return centers from information supplied by the Merchant/User as part of the earlier described application process.

15 The Merchant can allow returns to its physical retail store locations by checking the Any Retail Store item 184. In an alternative embodiment, the Return System provides the Merchant/User with a choice of Some Retail Locations accompanied by a pull down menu from which the Merchant/User can select the  
20 retail locations at which returns for online-purchase merchandise will be accepted.

In one embodiment of the invention, the Merchant defines return policies for merchandise purchased at physical retail store locations, as well as or instead of merchandise purchased  
25 through the Merchant's online store, so that all of the Merchant's customers can enjoy the convenience of returning unwanted merchandise with the ease of online services.

Using the Return Shipping Options Screen as depicted in FIG. 12, the Merchant/User defines Shipping Options 185. IF the  
30 Merchant agrees to pay for shipping returns, the Merchant/User checks the Merchant Pays option 186 and selects the shipping carriers and service options 187-1 through 190 for which the Merchant will agree to pay. If the Merchant does not want to pay for shipping returns, then the Merchant checks the Customer Pays  
35 option 191 and selects the carriers, e.g., 192-195, with which

the Consumer may chose to ship the return. If the Merchant checks both the Merchant Pays option 186 and the Customer Pays option 191, then the Return System applies the Merchant Pays option 186 to "justified" returns, and the Customer Pays option 191 to "unjustified" returns.

The Merchant/User saves its Return Shipping Options by clicking the onscreen Save button 177 or cancels its Return Shipping Option selections by clicking the onscreen Cancel button 176.

Returning to FIG. 7, if the Merchant/User selects the Return Questions menu item 110, the Return System displays a Return Questions/Responses Page. FIGS. 13a through 13d are graphic representations of an exemplary Return Questions/Responses Page in an exemplary embodiment of the invention.

The Return Questions Builder is where the Merchant defines questions to determine why the customer is returning the merchandise. The Return Questions Builder sets up a response tree. For each answer to each question, a different action can be indicated. The Customer Returns application wizard will present the questions in serial fashion to the customer and automatically enforce the programming rules set by the response tree.

Each question is enabled or disabled (can only be in one or the other state) by clicking the check box. The question's text is entered into the question text box. The Merchant has the option of asking each question for every item returned or just once per return session.

For each question, there is a corresponding answer. The answer heading text is entered into the answer heading text box. The merchant then sets up a response tree in the form of: Answer → Response → Next Action(s). The Merchant has the option of displaying response text.

The System further provides actions control of the flow of

the Customer Returns application. There is a button to allow editing of the next action list. Each entry in the "next action" list is selected via a list box of possible next actions, including for example: 1.) Ask Question number "n", where n is one of the Merchant's Return questions; 2.) Issue Refund; 3.) Do not issue Refund; 4.) Pay Return Shipping; 5.) Do not Pay Return Shipping; 6.) Pay Replacement Shipping; and 7.) Do not Pay Replacement Shipping. Further, there is also a button for editing and deletion of the answer. These features are described in more detail below.

Using the Return Questions/Responses Page, the Merchant/User defines return policy questions, circumstances in which the questions should be asked, possible answer choices, and corresponding responses. The Merchant/User defines a plurality of Questions, e.g., Question 1 200, 230, 231, 232, 233. For each question, the Merchant/User defines a number of criteria, as illustrated as follows for Question 1 200.

The Merchant/User defines the first Question 200 as On 201 or Off 202. The Merchant/User enters the text of the first Question 203 and instructs the Return System to either ask the first Question for each item to be returned 204 or Once per return 205. The Merchant/User enters an Answer Heading 206 with which to instruct the consumer making a return. The Merchant/User enters one or more Answer Choices, e.g., 207, 212, 216, 220. For each Answer Choice, e.g., 207, the Merchant/User enters Response text 208 (through which the Merchant/User can navigate using up and down scroll buttons, e.g., 209-1 and 209-2); indicates whether the Response text should be displayed 210 (checked: display; blank: do not display); identify Follow Up Instructions, e.g., 211-1, 211-2, 211-3. Follow Up Instructions are pre-established key word instructions which are described below with respect to FIG. 14. The Merchant/User clicks on the Edit Follow Up link to display a Follow Up Actions Screen,

described below with respect to FIG. 14, through which the Merchant/User defines the Follow Up Actions appropriate for the particular Return Response for the particular Answer Choice for the particular Question. The Follow Up Instructions, e.g., 211-1, 211-2, and 211-3, depicted are pulled from the Merchant/User's input of Follow Up Actions to the Follow Up Action Screen described below with respect to FIG. 14.

10 As depicted in FIG. 13b, the Merchant/User can click the onscreen Add/Remove Answer Choices button 224 to add or remove particular Answer Choices. The Merchant/User can check the Add Customer Comments Field 225 to display a window in which the Customer can enter text comments.

15 As depicted in FIG. 13d, the Merchant/User saves the Return Questions and Responses by clicking the onscreen Save button 177 and cancels the Return Questions and Responses settings by clicking the onscreen Cancel button 176.

The Merchant/User defines Follow Up Actions for each Return Response by clicking the Edit Follow Up link, e.g., 211-4, that corresponds to a particular Return Response, e.g., 208. FIG. 14 is a graphic representation depicting an exemplary configuration of Follow Up Actions corresponding to a particular Return Response for a particular Answer Choice for a particular Question in an exemplary embodiment of the invention. For a particular Return Response for a particular Answer Choice for a particular Question, The Merchant/User chooses: whether to Issue a Refund 240 by clicking Yes 241, No 242, or Undetermined 23; whether to Pay for Return Shipping 244 by clicking Yes 245, No 246, or Undetermined 247; whether to Pay for Replacement Shipping 248 by clicking Yes 249, No 250 or Undetermined 251; whether to Notify the Merchant's Customer Service Rep 252 by clicking Yes 253, No 254 or Undetermined 255; and whether to Ask Additional Questions 257 and if so, which ones, e.g., Q1 258 through Q10 267. In the embodiment depicted, questions with a Question number that

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numerically precedes or is equal to the Question Number of the Question from which the Follow Up Action Screen is entered can  
5 not be selected as next questions.

The Merchant/User Adds Follow Up Actions by clicking the onscreen Add Follow Up Actions button 268. The Merchant/User saves the Follow Up Actions entered by clicking the onscreen Save button 177 or cancels the Follow Up Actions entered by clicking  
10 the onscreen Cancel button 176.

Returning to FIG. 7, if the Merchant/User selects the Policy Exceptions menu item 111, the Return System displays a Policy Exceptions Screen. FIG. 15 is a graphic representation of an exemplary Policy Exceptions Screen in an exemplary embodiment of  
15 the invention. The Policy Exceptions Screen displays explanatory text 270 for the Merchant/User describing the uses of the Policy Exceptions function. The Merchant/User can choose to establish Policy Exception Categories 271, Items 272 or Customers 273.

If the Merchant/User clicks on the Policy Exception Categories link 271, the Return System displays an Exception Categories Page. FIG. 16 is a graphic representation depicting an exemplary first screen of the Exception Categories Page in an exemplary embodiment of the invention. As depicted in FIG. 16, the Return System displays explanatory text 280 describing how  
25 the Merchant/User can define special return processing for certain groups of items. The Merchant/User can enter a plurality of product categories 281-300. To cancel the Exception Category entries, the Merchant/User clicks the onscreen Cancel button 176. To proceed with Exception Category definitions, the Merchant/User  
30 clicks the onscreen Next Step >> button 301.

If the Merchant/User clicks the onscreen Next Step >> button 301, the Return System displays Store Categories Screens such as depicted in FIGS. 17a and 17b. Each Store Category defined in the Exception Categories 281-300 described above is  
35 presented so that the Merchant/User can identify the



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Subcategories, e.g., 302-309. If appropriate, the Merchant/User can further subcategorize the products by clicking on the Second-Level Subcategories link, e.g., 310, for the particular Category, e.g., 281. The Merchant/User can then use these Exception Categories and/or Subcategories to further tailor the Return Questions and Responses.

5 To save the Categories and/or Subcategories, the Merchant/User clicks the onscreen Save button 177. To cancel the Categories and/or Subcategories, the Merchant/User clicks the onscreen Cancel button 176.

10 In a similar way, the Merchant/User can define Exception Policies with respect to particular Items and/or Customers. If the Merchant/User clicks the Exception Items option 272, an Exception Item Screen is displayed that prompts the Merchant/User for a plurality of Item Names, IDs or Descriptions, for example, an SKU. If the Merchant/User clicks the Customer Exceptions option 273, a Customer Exception Screen is displayed that prompts the Merchant/User for a plurality of Exception Customer IDs.

20 Returning to FIG. 7, if the Merchant/User selects the Web Page Configuration menu item 112, the Return System displays a Web Page Configuration Screen. FIGS. 18a and 18b are graphic representations of exemplary Web Page Configuration Screen in an exemplary embodiment of the invention. With the Web Page Configuration Screens, the Merchant/User can define the URL 320, Cancel URL 321, Done URL 322, Title Font Face 323, Font Face 324, Page Background Color 325, Shade Color 326, Title Bar Color 327, Title Font Color 328, Hover Text 329, Image Name 330, Image Text 331, Site Text 332, User ID 333, Password 334, Header HTML text 335 (with navigation up and down scroll buttons 336-1 and 336-2), Footer HTML text 337 (with navigation up and down scroll buttons 338-1 and 338-2) and Integration Notes 339 (with navigation up and down scroll buttons 340-1 and 340-2). The Merchant/User cancels the Web Page Configuration settings by clicking the

onscreen Cancel button 176 or saves the Web Page Configuration settings by clicking the onscreen Save button 177.

5 In one embodiment of the invention, the Merchant/User is also prompted to supply a "mapping" of the Merchant's Online system tag names to data names for data required by the Returns System. The Merchant supplies the data tag names for particular data in the Merchant's Order Management System. For each data  
10 item required by the Return System to process a return request, the Return System presents the name and description of the required data and prompts the Merchant/User to supply a corresponding data tag name. In one such embodiment, the Return System will access the Merchant's Online store system according  
15 to information supplied by the Merchant in the Web Page Configuration Screen to validate the mapping information and will notify the Merchant/User if the mapping information supplied is not correct.

In the exemplary embodiment of the invention depicted in  
20 FIGS. 18a through 18b, the Merchant's mapping information is supplied off-line as part of the application process and is hard-coded into the system before assigning the Merchant/User a password for the Return System.

Returning to FIG. 7, if the Merchant/User selects the Email  
25 Responses menu item 113, the Return System displays Email Responses Screen. FIG. 19 is a graphic representation of an exemplary Email Responses Screen in an exemplary embodiment of the invention. If the Merchant/User wants to have the opportunity to edit the text of e-mails sent to Customers, the Merchant/User  
30 clicks the Customer option 350. If the Merchant/User wants to have the opportunity to edit the text or other fields of e-mails sent to Merchant, the Merchant/User clicks the Merchant option 351.

A component for the Returns Policy Builder function is the  
35 situation-response table which acts like a traffic cop to direct

the logic flow in the Customer Return application. The table consists of the following elements:

5 A.) Situation Table - contains a list of all possible circumstances that might need a response. For example: 1.) Merchant pays for return shipping; 2.) Customer pays for return shipping; 3.) Customer X makes a return request; 4.)  
10 Product Z is selected for a return; 5.) Product category y is selected for a return; and 6.) Wrong item received.

15 B.) Response Table - contains a list of all possible actions the system can take. For example: 1.) Issue Refund; 2.) Reply with Email format N; 3.) Pay Return Shipping; 4.) Ask question N; and 5.) Reply with response Z.

20 C.) Situation-Response Table - contains a list all of the valid situation-response pairings

Once the Merchant/User has set up the Merchant's Account and Return Policy, the Merchant is ready for Customers to use the Return System from within the Merchant's online store web site.

25 B. CONSUMER RETURNS

30 FIGS. 20a through 20c are logic flow diagrams depicting an exemplary high level logic flow for a Consumer's experience with an exemplary embodiment of the Returns System of the present invention from within a Merchant's Online store. Each of the functions described below with regard to FIGS. 20a through 20c are described in context of exemplary online screens as depicted in subsequent FIGURES.

35 From within a particular Merchant's Online store, the Consumer (also sometimes referred to herein as the "Shipper") accesses the Consumer's Order History 360. FIG. 21 is a graphic

representation of an exemplary Order History display for a particular Customer in a particular Merchant's Online store. In the exemplary Order History display depicted in FIG. 21, the particular Consumer's Shipped Orders 400 are listed, e.g., 401-1 through 401-7. From the Order History as depicted in FIG. 21, the Consumer can select a particular order number, e.g., 401-1, by, for example, clicking the cursor on the order number 401-1.

10 To return an order, or an item from within a particular order, the Consumer selects a particular order number, e.g., 400. Selecting a the order number 400, causes the Merchant's Online store system to display an Order Summary 361 as depicted in FIG. 20a. FIG. 22 is a graphic representation of an exemplary Order  
15 Summary Screen for a particular Order Number for a particular Consumer from within a particular Merchant's Online store in an exemplary embodiment of the invention.

The exemplary embodiment of the invention depicted in FIG. 20a shows that the Merchant's Online store system accesses the  
20 Return System's Tracking Database 115 (which is part of the Return System's databases 22) to provide the Consumer's Order History and Order Summary information. In an alternative embodiment, the information necessary to populate the Consumer's Order History and Order Summary information is contained within  
25 the Merchant's store's own databases.

As depicted in FIG. 22, the Return System icon, e.g., 402, is displayed on the Order Summary Screen. To return a particular item or set of times, the Consumer must click on the Return System icon 402. As depicted in the Consumer clicks on the  
30 Return System icon 402 which causes the display of a Returns Service Screen. FIG. 23 is a graphic representation depicting an exemplary Returns Service Screen in an exemplary Merchant's Online store in an exemplary embodiment of the invention.

In a Returns Service Screen, such as the exemplary one  
35 depicted in FIG. 23, the Merchant's Standard Policy Overview

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Statement 420 (e.g., 160 as depicted in FIG. 11) is displayed by retrieving the Merchant's Policy Overview statement 362 from the Return System Account Database 106 as depicted in FIG. 20a. As depicted in FIG. 23, a check box, e.g., 421-1 through 421-7, is displayed next to each ordered item, e.g., 404-1 through 404-7. To return a particular item or set of times, the Consumer must select the items to be returned 363 as depicted in FIG. 20a. As depicted in FIG. 23, a Consumer that wants to return a particular item, e.g., 404-7, checks the check box 421-7 associated with that item (multiple boxes for multiple items can be checked) and then clicks the onscreen Next Step >> button 422.

As depicted in FIG. 20a, the Return System then prompts the Consumer, through the Merchant's Online Store system, to answer the Merchant's Return Questions and provide the requested Return Reasons 364. FIG. 24 is a graphic representation of an exemplary Returns Service Return Reason Screen in an exemplary embodiment of the invention. As depicted in FIG. 24, for the Order selected 401-1, for the item 404-7 selected to be returned 421-7, the Merchant's Question 206 is asked, prompting the Consumer with acceptable answers 216, 207, 212, and 220 for selection 427-1 through 427-4. A Consumer Comments window 425 is provided with up and down scroll buttons 426-1 and 426-2 in which the Consumer can specify a narrative description. As depicted in FIG. 20a, the Return System compares the Consumer's Return Reason with the Merchant's Return Policy 365. According to the Merchant's Return Policy, if the Consumer's Return Reason is "justified", then the Return System authorizes the return 369 (and according to the Merchant's Return Policy, pays for the Return Shipping), calculating a Refund Amount and allowing the Consumer to Launch a Label 370, Print a Shipping Label 371; the Return System thanks the Consumer 372 and Prepares a Package Return Shipped e-mail 373.

35 A Refund Amount 172 is calculated based upon the standard

policy choices made by the Merchant (Refund Amount 172 = Item Price 173 + Item Tax 174, as depicted in FIG. 11). When the Consumer has completed the Return Reasons for the particular item, the Consumer clicks the onscreen Next Step >> button 422.

FIG. 25 is a graphic representation of an exemplary Return Summary Screen in an exemplary embodiment of the invention. The Return Summary Screen displays the Merchant's Response 213-1 appropriate for the Consumer's Return Reason 427-3 in response to the Merchant's Return Question 206 and possible Return Answers 216, 207, 212 and 220. The Return Summary Screen displays the item description of the item being returned 404-7, the Reason for Return 212, and the Consumer's comments 425. The Return Summary Screen also displays the item price 173 and the calculated Refund Amount 172.

The Return Summary Screen prompts the Consumer to select one of the Merchant's choices of Carriers 187-1, 188-1, 190 and 184. The Return Summary Screen also prompts the Consumer to indicate whether 433 or not the 434 the returned item is in its original packaging 432. By pressing the onscreen Next Step >> button 422, the Return System displays a Label Create Screen.

FIG. 26 is a graphic representation depicting an exemplary Label Create Screen in an exemplary embodiment of the invention. The exemplary Label Create Screen depicted in FIG. 26 notifies the Consumer that the Return Package is ready to be shipped 440 and instructs the Consumer how to create a shipping label for the package 441 according to the Carrier selected by the Consumer (431 in FIG. 25).

If the Consumer presses the onscreen Next Step >> button 422 on the Label Create Screen, the Return System prepares a Carrier shipping tracking number 450 and an internal Return System tracking number for the item package. The Return System prepares a shipping label for the item package an exemplary embodiment of which is depicted in FIG. 27a.

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5 A System tracking number is a unique number generated internally by the System to identify a particular package shipped using the System. The Shipper inputs the Shipper's Parcel Specifications for the Subject Parcel. Using each Shipper's Parcel Specifications, the System is programmed to access databases containing information about each supported Carrier. Each supported Carrier has a unique rating schedule, delivery and pickup rules and schedules, and certification requirements (the "Carrier Rules"). The System is further programmed to apply each supported Carrier's Rules to each Shipper's Parcel Specifications for the corresponding Subject Parcel.

15 As a result of the Consumer creating a shipping label, the System assigns the package a System package tracking number and adds a record containing all of the pertinent information about the package to the System database 22. Following are exemplary Shipping tracking numbers: MAGGY841VRY50; MAGGY84B496RF; MAGGY84XOFJ45.

20 In one embodiment, the System Tracking Number is based on a Base-33 number system. The characters available are: Zero (0) through nine (9) and A through Z excluding "I" (i), "L" (l), and "O" (o). Each letter represents a value, as depicted in the table below:

25           A = 10   F = 15   M = 20   S = 25   X = 30  
          B = 11   G = 16   N = 21   T = 26   Y = 31  
          C = 12   H = 17   P = 22   U = 27   Z = 32  
          D = 13   J = 18   Q = 23   V = 28  
          E = 14   K = 19   R = 24   W = 29

30 Each System Tracking Number is 13 alphanumeric characters. Position 1 is the letter 'M'. Positions 2 - 7 are a System Account number. Positions 8 - 12 are a five-digit ID. Position 13 is a Check Digit.

35 To calculate the Check Digit, the System performs the following steps: 1) Consecutively multiply the numeric value of

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each of positions 2-7; 2) Consecutively multiply the numeric value of each of positions 8 - 12; 3) Add both results; 4) Divide  
5 by 31; 5) Convert the remainder value to a Base-33 number. The converted value is the Check Digit.

If the Consumer decides to print the label, the Consumer clicks the "Print This Label Now" link 451 on the Print Label Screen as depicted in FIG. 27a.

10 As mentioned above, in some embodiments, the Shipper can use the System to locally print on the Shipper's printer device a bar-coded shipping label according the Selected Carrier's certification standards. In some embodiments, the bar-coded shipping label, including two dimensional bar code labels, and  
15 other types of shipping labels, can be printed on either a thermal label printer or on a laser printer. The Shipper specifies the type of printer to the system during initial setup procedures. Thereafter, the System uses, as appropriate, the thermal printer or laser printer module to prepare the label  
20 image for printing on the Shipper's printer.

FIG. 27b depicts a flow diagram of one embodiment of the aspect of the invention that provides printing of bar-coded shipping labels on printer devices which are compatible with the client system on which the web browser is running, such as an HP-  
25 compatible laser printer. As depicted in FIG. 27b, one of the System Servers, for instance, a Shipping Server, e.g., 21s, gets the Label Size from the Carrier Label Specification 1250, the Label Layout from the Carrier Label Specification 1251, Label Data from the Shipper Database 1252, and the Label Quality in  
30 Dots Per Inch ("DPI") as set by the Server 1253, and uses this information to Generate the Label 1254.

The Server then creates, and causes the display on the client browser's display device of, a text string with a specified font face and in a specified font size in an HTML table  
35 data cell with a specified width 1255. If the client browser is



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using a 1096 display device DPI, the display device will display said text string in the HTML table data cell in a single line.

5 If on the other hand, the client browser is using a 1120 display device DPI, the display device will display said text string in the HTML table data cell in two lines.

In creating the display of the text string, the Server also sends a message to the Shipper asking the Shipper to answer the following question: do you see the text string displayed on your screen as a single line or as wrapped text in multiple lines? The Server receives the Shipper's response and determines from the response whether the Shipper's display device has displayed the text as a single line or as wrapped text in multiple lines  
10 1256. If the text is displayed as a single line, then the client browser 1257 display device DPI is 1120. Otherwise, the client browser 258 display device DPI is 1096.

Next, the Server calculates the shipping label HTML image size in pixels 1259 by multiplying the Carrier-specified label size from the Carrier Label Specification times the client browser display device DPI as determined by the previous step.  
20

Next, the System displays the generated label image in the client browser 1260 with an HTML image tag and an HTML image size in pixels as calculated in the prior step.

25 The client browser calculates the size of the label to be printed in inches by dividing the label HTML image size in pixels as calculated in a prior step by the client browser display device DPI 1261; the client browser then prints out the label with the size calculated 1261.

30 FIG. 27c depicts a flow diagram of an exemplary embodiment of the aspect of the invention that provides printing of dimensionally accurate images, such as dimensionally sensitive symbologies including two-dimensional bar codes and other two-dimensional machine readable symbologies. This aspect of the invention provides the printing of such dimensionally accurate  
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images on various types of printer devices including among others HP-compatible laser printers. The printer devices can be  
5 configured with remote computers, such as PC's, that will receive signals to print the dimensionally accurate image over a communications network such as the Internet. Each PC having a client browser or executing like software, and each PC being configured with a pre-established Image Resolution that applies  
10 to the display device and the printer device configured with the PC.

As depicted in FIG. 27c, a computer, such as Server 1014, determines the Image Size 1350, the Image Layout 1351, any relevant Image Data 1352, and the Image Resolution in Dots Per  
15 Inch ("DPI") or in any other measure of Image Resolution 1353. The Server 1014 uses this information to Generate the Image 1354.

Alternatively, the Image has previously been created; the Server 1014 determines from the Image, the Image Size 1350, the  
20 Image Layout 1351, any relevant Image Data 1352, and the Image Resolution in DPI or in any other measure of Image Resolution 1353 (collectively referred to hereinafter as the "Image Characteristics").

The Server 1014 determines the possible Image Resolution  
25 Categories and associated values of client PC's 1354. Image Resolution Categories and associated values include information such as the number of text strings, and the length of and characteristics (font face, font size, and HTML table cell width) of each of the identified number of, text strings that must be  
30 used to determine the Image Resolution of client display devices 1356.

An HTML table cell width is fixed in that the physical width of the display of the HTML table cell does not change depending upon the resolution of the client device; a text string comprised  
35 of characters having a particular font and font size has a

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scalable width, depending upon the resolution of the client device resolution. Use of an HTML table cell to measure the resolution of client devices is not a limitation of the invention. In an alternative embodiment, a graphic element other than an HTML table cell, having a fixed width, is used to measure the resolution of client devices.

5 The possible Image Resolution Categories and values are stored in the memory of the Server 1014 and updated on some basis. In an alternative embodiment, the possible Image Resolution Categories and values are input into the Server computer.

10 The Server 1014 then analyzes the Image Characteristics, and the possible Image Resolution categories and/or values 1355, and creates the appropriate number of text strings and associated HTML table cells 1356. Each text string is created to have a specified font face, a specified font size, and an associated HTML table cell with a specified width 1357. The computer then causes the display of the text strings in the associated HTML table cells on the remote client PC's display device 1358.

15 In creating the display of the text string, the Server also sends a message to the recipient PC asking the user to answer the following question: is the first text string displayed on your screen as a single line or as wrapped text in multiple lines? The Server 1014 receives the remote user's response and determines from the response whether the remote user's PC's display device has displayed each of the text strings as a single line or as wrapped text in multiple lines 1256. The Server 1014 then sets the PC's Remote Image Resolution for printing the Image 1359 according to the results of the user's PC's display of the text strings.

30 Next, the Server calculates the Remote HTML Image Size in pixels 1360 by multiplying the Image Size times the PC's Remote Image Resolution as determined by the previous step.

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Next, the Server displays the generated image on the display device of the remote PC 1361 with an HTML image tag and the Remote HTML Image Size in pixels as calculated in the prior step.

The client browser of the remote PC calculates the size of the Image to be printed ("Remote Print Image Size") in inches by dividing the Remote HTML Image Size in pixels by the Remote Image Resolution 1362; the client browser then prints out the Image with the Remote Print Image Size 1362.

In one embodiment of the invention, instead of printing a shipping label at the Shipper's printer, a Package Number 1120 is displayed online on a Package Number Screen with notification that the label will be printed at a shipping location previously designated by the Shipper. FIG. 56 depicts an exemplary embodiment of a Package Number Screen. The Shipper can Void the Package Label at this point by clicking the Void Package button 1121. The Shipper can request shipping of a new parcel by clicking the "New Package" button 1122 or can indicate completion of shipping instructions by clicking the "Done" button 1123.

After the Consumer has printed a shipping label, as depicted in FIG. 28, the Return System then thanks the Consumer 455 and allows the Consumer to either return to the Merchant's Home Page, e.g., 456, or return to the Consumer's Order History 406. The option to return to the Consumer's Order History 406 is an option on most of the Consumer Return System Screens described above (FIGS. 22-26, 28).

Once the Consumer has printed a shipping label, the Return System generates a Return Shipped e-mails, one to the Merchant, an exemplary embodiment of which is depicted in FIG. 29, and one to the Consumer, an exemplary embodiment of which is depicted in FIG. 30.

Returning to FIG. 20a, if the Consumer provides a Return Reason that is not considered "justified" by the Merchant, then a different set of functions is performed by the Return System.

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In FIG. 31, the Consumer requests 421-5 to return an item 404-5. In FIG. 32, the Consumer indicates as a Return Reason a reason  
5 427-1/216. The Return System compares the reason 216 to the Merchant's Return Policy 365, as depicted in FIG. 20a. In this case, the Return System determines that the reason is not justified. Accordingly, the Return System, as instructed by the Merchant's Return Policy, requires that the Consumer pay for  
10 return shipping.

As depicted in FIGS. 20a through 20c, in order to pay for return shipping, the Return System prompts the Consumer to specify Return Shipping Preferences 366, prepares and displays a Graphic Comparison of the costs of shipping the item with a  
15 plurality of Carriers and Services 367, and prompts the Consumer to select and pay for shipping the package according to the Carrier and Service selected 368, before allowing the Consumer to create and print a return shipping label 370 -371.

Accordingly, when the Consumer then clicks the onscreen Next  
20 Step >> button 422, as depicted in FIG. 32, the Return System displays a series of Consumer Shipping Preferences Specification Screens, exemplary embodiments of which are depicted in FIGS. 33-35. In the Consumer Shipping Preferences Specifications Screen depicted in FIG. 33, the Return System prompts the Consumer to  
25 identify a Carrier 469 from a selection of Carriers and Return Locations 470-474 that were allowed by the Merchant (FIG. 12, 192-195, 181, 184); specify item packaging 475 as original 476 or not 477; and specify payment information 478 - 487. Once the Consumer has completed the necessary information, the Return  
30 System validates the Consumer supplied information. If the Consumer clicks the onscreen Next Step >> button 422, the Return System displays a subsequent Consumer Shipping Preferences Specification Screen, as depicted in FIG. 34.

In the Consumer Shipping Preferences Specification Screens  
35 depicted in FIG. 34, the Return System prompts the Consumer to

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specify the package weight 500, packaging type information 501-505, package dimensions 506-507, origination postal code 510, destination postal code 511, the destination address city 511, the destination address country 513, the destination delivery address type 514-515, and loss protection coverage 516. Once the Consumer completes this information, if the Consumer clicks the onscreen Continue button 422, the Return System displays a subsequent Consumer Shipping Preferences Specification Screen, as depicted in FIG. 35.

In the Consumer Shipping Preferences Specification Screens depicted in FIG. 35, the Return System prompts the Consumer to specify the Carriers that the Consumer is willing to use, e.g. 520-523; the Consumer's ship from location 524 (a pull down menu of which is available by clicking the pull down menu button 525) and 526; the shipping date 530; and tracking capabilities 532-533. If the Consumer needs additional information, the Consumer clicks the Learn More button 527 which is contextually sensitive as to which shipping specifications are involved. Once the Consumer completes the information, the Return System validates the information. The Consumer can return to a previous specification screen by clicking the onscreen << Back button 540, or can go to the next step by clicking the onscreen Continue >> button 422.

If the Consumer has completed all of the necessary specification information and clicks the onscreen Continue >> button 422, the Return System generates and displays a Graphic Cost Comparison of the selected Carriers and available Carrier Services, exemplary embodiments of which are depicted in FIGS. 36a and 37.

FIG. 36a depicts an exemplary Dynamically Dimensioned Multi-Carrier, Multi-Service Graphic Array online display as part of an exemplary supplemental Shipper Parcel Specification Input Screen.

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In the embodiment of the Graphic Array depicted in FIG. 36a, the particular screen is titled the Rates and Times Screen.

5 As depicted in FIG. 36a, the exemplary Graphic Array contains the following information and display elements: 1) valid delivery dates 1063 (1063-1 through 1063-3) across the top of the graphic display for the selected Ship Date; 2) sorted, valid delivery times 1064 (1064-1 through 1064-6) for all valid dates  
10 down the left side of the graphic display; and 3) color coded by Carrier, Carrier cell entries, e.g., 1065, for each available rate, by date and time.

In the exemplary embodiment depicted in FIG. 36a the Graphic Array comprises an array of intersecting rows and columns. Each  
15 column corresponds to a day and date of parcel delivery. In FIG. 36a, the days and dates of delivery shown are "TUE 28 SEP 99" (1063-1), "WED 29 SEP 99" (1063-2) and "THU 30 SEP 99" (1063-3). As depicted in FIG. 36a, space for other columns (1063-4 through 1063-7) are available for display; in the case of the example  
20 depicted in FIG. 36a however, no dates are displayed in those columns.

Each row of the Graphic Array corresponds to a time of delivery. In FIG. 36a, the times of delivery are shown as "8:00 AM" (1064-1), "10:30 AM" (1064-2), "12:00 PM" (1064-3), "3:00 PM"  
25 (1064-4), "4:30 PM" (1064-5), and "5:00 PM" (1064-6).

At the intersection of each row (1064-1 through 1064-6) and column (1063-1 through 1063-7) of the Graphic Array is a "cell." In FIG. 36a, cells will be referred to by the element 7101, and by the intersecting row (1 through 6) and column (1 through 7)  
30 the intersection of which forms the space for each cell (1071-1-1, 1071-1-2, . . . 1071-6-7). Some of the cells depicted in FIG. 36a are empty, e.g., 1071-5-1, 1071-6-1, 1071-6-3, 1071-6-4. Empty cells represent the circumstances that none of the Carriers supported by the System (the "supported Carriers") support

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delivery of the Subject Parcel for the time and date for which that cell represents the intersection.

5 Some cells depicted in FIG. 36a have one or more cell entries. In FIG. 36a, each cell entry represents a particular Carrier. Each Carrier cell entry is color coded with a unique color, the unique color corresponding to a particular Carrier as is discussed in more detail below; each Carrier cell entry  
10 contains a graphic element, e.g., 1147a, and a monetary amount, e.g., 1147b, which represents the price for which the corresponding Carrier would deliver the subject parcel. For instance, cell 1071-1-1 contains a single Carrier cell entry 1148. Cell 1071-3-1 contains two Carrier cell entries 1065 and  
15 1149.

A color-coding legend 1062 is displayed on the Screen to identify by a name (1140b, 1141b, 1142b, and 1143b) and a color-coding symbol (1140a, 1141a, 1142a, and 1143a), each of the supported Carriers that provide the service according to the  
20 particular Shipper's Parcel Specifications for the particular Subject Parcel.

For purposes of this application, unique colors are depicted with graphic symbols. For example, a right-diagonal hash mark symbol 1140a is used herein to represent the color red; a left-  
25 diagonal hash mark symbol 1141a is used herein to represent the color purple; a vertical hash mark symbol 1142a is used to represent the color amber; and a horizontal hash mark symbol 1143a is used to represent the color blue. The particular hash mark symbols used herein and the colors mentioned herein are  
30 exemplary and are not a limitation of the invention.

Each cell of the Graphic Array that is not empty contains one or more color-coded Carrier cell entries. For example, in FIG. 36a, cell 1071-3-1 contains two Carrier cell entries, 1065 and 1149. Carrier cell entry 1065 is color-coded with the right-  
35 diagonal hash mark symbol (representing the color red) which,



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according to the color-coding legend 1062, corresponds 1140a with the Carrier identified as "Airborne" 1140b. Carrier cell entry  
5 1149 is color coded with the horizontal hash mark symbol (representing the color purple) which, according to the color-coding legend 1062, corresponds 1143a with the Carrier identified as "USPS" 1143b.

Each Carrier cell entry, e.g., 1065, contains a graphic  
10 element, e.g., 1065a, which contains what is known as "ALT text". As depicted in FIG. 36a, a Shipper viewing the Graphic Array online can place the PC's cursor on the graphic element, e.g., 1065a of a particular Carrier cell entry, e.g., 1065, to display a pop-up screen 69 that displays the ALT text for that particular  
15 Carrier cell entry. In some embodiments, the ALT text will be displayed by merely placing the cursor over the graphic element for a particular Carrier cell entry and leaving the cursor in that position for a certain time interval. In alternative embodiments, the Shipper must click on the graphic element for a  
20 particular Carrier cell entry in order to display the ALT text. In the exemplary embodiment depicted in FIG. 36a, the displayed ALT text, e.g., the text displayed in pop-up screen 69, contains the full Carrier name (in the depicted case, "Airborne Express") and the full Carrier service name (in the depicted case, "Express  
25 Overnight Service") for the Carrier 1140b (in this case, Airborne) to which that Carrier cell entry corresponds.

As depicted in FIG. 36a, the color for the Carrier identified as "Airborne" 1140b is depicted in the color coding legend 1062 with a right-diagonal cross-hatch symbol 1140a.  
30 Accordingly, each Carrier cell entry contained within the Graphic Array with the right-diagonal cross-hatch symbol, e.g., 1065, corresponds to a delivery of the Subject Parcel supported by the Carrier "Airborne." Appearing in each of the color-coded Carrier cell entries, e.g., 1065 is a graphic element, e.g., 65a, and a  
35 monetary value, e.g., 1065b. The monetary value, e.g., 1065b

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corresponds to the price that the corresponding Carrier would charge to deliver the Subject Parcel according to the time 1064-3 and date 1063-1 specified according to the row and column of which the intersection (which, in the case described is cell 1071-3-1) contains the Carrier cell entry 1065. For example, as depicted in FIG. 36a, the Carrier cell entry 1065, depicted with the right-diagonal cross-hatch symbol, contains the monetary amount "\$9.00." Accordingly, the amount \$9.00 is the price that the Carrier Airborne would charge to deliver the Subject Parcel at the identified time of 12:00 p.m. 1064-3 on the identified date of Tuesday, September 28, 1999 1063-1.

Similarly, as depicted in FIG. 36a, the color for the Carrier identified as "FedEx" 141bis depicted in the color coding legend 1062 with a left-diagonal cross-hatch symbol 1141a. Accordingly, each Carrier cell entry contained within the Graphic Array with the left-diagonal cross-hatch symbol, e.g., 1147, corresponds to a delivery of the Subject Parcel supported by the Carrier "FedEx."

Further, as depicted in FIG. 36a, the color for the Carrier identified as "UPS" is depicted in the color coding legend 1062 with a vertical cross-hatch symbol 1142. Accordingly, each Carrier cell entry contained within the Graphic Array with the vertical cross-hatch symbol, e.g., 1148, corresponds to a delivery of the Subject Parcel supported by the Carrier "UPS."

Similarly, as depicted in FIG. 36a, the color for the Carrier identified as "USPS" is depicted in the color coding legend 1062 with a horizontal cross-hatch symbol 1143. Accordingly, each Carrier cell entry contained within the Graphic Array with the horizontal cross-hatch symbol, e.g., 1149, corresponds to a delivery of the Subject Parcel supported by the Carrier "USPS."

In the embodiment of the Graphic Array depicted in FIG. 36a, the Graphic Array is dynamically dimensioned. For instance, only

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the dates and days (1063-1 through 1063-3) for which delivery that conforms to the particular Shipper's Parcel Specifications for the particular Subject Parcel are displayed across the top of the graphic. For example, for the date Tuesday, September 28, 1999 (1063-1), at the time 5:00 p.m. (1064-6), no Carrier supports delivery of the Subject Parcel.

Further, as depicted in FIG. 36a, only the times (1064-1 through 1064-6) during which at least one of the Carrier/Services identified as supporting the delivery are displayed along the viewer's left side of the Dynamically Dimensioned Multi-Carrier Graphic Array online display.

Still further, as depicted in FIG. 36a, a Carrier cell entry, e.g., 1065, is displayed for each of, but only for each of, the Carriers/Services that support delivery for a particular day and time in the cell of the Graphic Array that represents delivery on a particular day and at a particular time. When the circumstances require, the System displays one or more Carrier cell entries in a single cell. For instance, cell 1071-3-1 contains two entries, 1065 and 1149; whereas cell 1071-1-1 contains only a single cell. Accordingly, as depicted in FIG. 36a, the cell size expands vertically to accommodate multiple Carrier cell entries.

In the exemplary embodiment depicted in FIG. 36a, the color-coding legend 1062 for each of the Carriers/Services represented in the Graphic Array is displayed with color-coding graphic elements (1140a through 1143a) and identification labels (1140b through 1143b) for each relevant Carrier/Service along the viewer's right side of the rating and timing graphic. Alternatively, instead of the printed name, the logo for the particular Carrier/Service can be displayed. As another alternative, the Carrier/Service logo can be displayed in color in the color-coding legend 1062.

The particular arrangement of the color legend 1062 depicted

in FIG. 36a and the particular colors used in the color legend depicted therein are exemplary and are not a limitation of the invention. In an alternative embodiment, instead of using color, other visually distinctive methods are used to differentiate between different Carriers/Services. For instance, other visually distinctive methods of Carrier/Service differentiation include but are not limited to: three-dimensional texture effects, other three-dimensional effects, two-dimensional markings (for instance, dots, cross-hatching, and the like), lighting effects, graphic symbols (for instance, the logos of the Carriers/Services) and any combination of the aforementioned features with color.

15 In the embodiment of the Graphic Array depicted in FIG. 36a, the exemplary Graphic Array is depicted as horizontally wide enough to accommodate seven delivery days (1063-1 through 1063-7) within a particular delivery timespan. The depiction in FIG. 36a of the Graphic Array as a fixed size accommodating up to seven delivery days is exemplary and is not a limitation of the invention. In alternative embodiments, the Graphic Array online display collapses or expands in total size to reflect the actual number of rows and columns that need to be present in order to display the Carrier cell entries for the Carriers/Services that support delivery of the Subject Parcel according to the Shipper's Parcel Specifications.

The arrangement as depicted in FIG. 36a of the parcel delivery days and dates (1063-1 through 1063-7) across the top and the parcel delivery times (1064-1 through 1064-6) along the left side of the Graphic Array is exemplary and is not a limitation of the invention. In one alternative embodiment, the parcel delivery days and dates are displayed across the bottom, and the parcel delivery times are displayed on the viewer's right side, of the Graphic Array. In other alternative embodiments, the parcel delivery days are arranged on one of the two sides of

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the Graphic Array and the parcel delivery times are arranged along the top or the bottom of the Graphic Array. In such an  
5 alternative embodiment, the cells of the Graphic Array are expandable horizontally to accommodate the appropriate number of relevant Carriers/Services.

As depicted in FIG. 36a, the Shipper is asked to input the Expected Ship Date 1060. In the exemplary embodiment depicted,  
10 a drop down menu activation mechanism 1061 provides the Shipper the ability to activate a pull down menu (not shown) of seven entries beginning with the current date and includes the six days immediately following the current date. The format used is "M/D/YY - Day name". "Today" and "Tomorrow" are displayed  
15 appropriately. The number of entries provided by the selection mechanism, the format of the Expected Ship Date, and other features described herein are exemplary and are not a limitation of the invention.

In the exemplary embodiment depicted in FIG. 36a, once the  
20 Shipper selects the Expected Ship Date, the System uses the Expected Ship date and the other information provided by the Shipper, as in the screens depicted in FIGS. 15 and 26 described above, to access the Carrier Rules, apply the Carrier Rules, and prepare the Graphic Array containing the delivery prices and  
25 delivery times for the Subject Parcel according to the Shipper's Parcel Specifications. The System will then generate the signals necessary to display the Graphic Array and cause the Graphic Array to be displayed on the Shipper's PC.

Once the Graphic Array is displayed, the Shipper can change  
30 previously input information and the System will automatically regenerate the Graphic Array with the delivery rates and delivery times that have been updated to reflect the new information. For instance, if the Shipper selects a new shipping date, the System will regenerate the Graphic Array with the appropriate new rates  
35 and times. The logic for regenerating the Graphic Array is

described in more detail below.

5 In the exemplary embodiment depicted in FIG. 36a, a Ship  
Location Type drop down menu activator 1067 is located below the  
Graphic Array. The particular location of the Ship Location Type  
selection mechanism as described herein is exemplary and is not  
a limitation of the invention. The list of locations is the same  
10 as the Shipping Location Type drop down menu described above in  
the description of FIGS. 15 and 26. If the Shipping Location  
class is a "ship center", a "Find Location" button 1068 is  
displayed next to the drop down menu. In order to open the Drop  
Off Locator in a pop-up window, the Shipper places the Shipper's  
PC cursor on the "Find Location" button 1068 and clicking the  
15 Shipper's user input device. The Origin Zip Code and Ship  
Location type values supplied by the Shipper are used as  
parameters for the Drop Off Locator to locate a list possible  
Drop Off Location choices. The Shipper can select a Drop Off  
Location from the Drop Off Locator menu. The system dynamically  
20 responds to changes by the Shipper to Origin Zip Code and Ship  
Location type to present choices of Drop Off Location choices.

Navigation buttons appear at the bottom of the Rates and  
Times Screen depicted in FIG. 36a. Clicking the "Back" button  
1070 will return the Shipper to the previously displayed screen,  
25 which in the embodiment depicted is the Location and Package  
Screen as depicted in FIGS. 15 and 26. Clicking the "Next" button  
1054 will cause the next screen, which in the embodiment depicted  
is the Service Option Screen (FIG. 28), to be displayed but only  
if the Shipper has selected a particular Carrier cell entry. For  
30 example, if the Shipper click on a particular Carrier cell entry  
such as 1065, the System will allow the Shipper to then click on  
the "Next" button 1054 and proceed to the Service Option Screen  
as depicted in FIG. 28.

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If a user returns to the Rates and Times Screen (FIG. 36a) from any of the Specification Screens, e.g., FIGS. 33-35, any  
5 Specification changes will effect the displayed rates.

Using the subject parcel's Parcel Specifications, the System is programmed to access databases containing information about each supported Carrier. Each supported Carrier has a unique rating schedule, delivery and pickup rules and schedules, and  
10 certification requirements (the "Carrier Rules"). The System is further programmed to apply each supported Carrier's Rules to each Shipper's Parcel Specifications for the corresponding Subject Parcel. The System calculates the Shipping Charges based on zip-to-zip pricing where the Seller has provided the origin  
15 zip code and the Buyer has provided the destination zip code.

To develop the rates for display in the Graphic Array, the System rating component is instantiated in the server-side script. The rating component's rate information method is invoked with the rate parameters embedded in the URL. Based on  
20 Carriers' business rules, the rates and their service option charges for all Carriers/Services are calculated from each respective Carrier's zone data, service/delivery time data and rate data.

The System keeps the Carrier data up-to-date in the System database 22. The application does not use any carriers' Application Program Interface (API) functions to get the rate information. All of carrier rate data is stored in the System database 22 and all business rules to calculate the rates are  
25 implemented within the System.

FIGS. 36b through 36e are high level data retrieval and logic flow diagrams depicting the data and high level logic that the system uses to calculate a shipping rate. As depicted in FIG. 36b, the following shipping information is used to calculate  
30 a shipping rate: Origin postal code, Destination postal code, Weight, Packaging, Drop off / Pickup, Country code 3001. For each  
35

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Carrier 3002, the rating component of the System uses the origin and destination postal codes 3003. The rating component of the  
5 System obtains 3003 the zone id from the zone table 3008 and gathers 3004 the time for deliveries for all available services from the service delivery time table 3009. From the rate table 3010, the rating component obtains services charges for the zone id, packaging type and weight 3005. For each service, the rating  
10 component gathers all possible service options charges 3006. After gathering necessary information, the rating component returns an array of rate information 3007. Each element in the array represents a Carrier/Service and consists of service charge, service option charges, and delivery times.

15 The System calculates the rates according to the following overview logic as depicted in FIGS. 36c-36d. The System retrieves all rate IDs (published, net, and retail) by joining the following database tables on the System's AccountNo: AccountAndCarrierAcnt; CarrierAccount; RateDefinition 3020.

20 The System then determines the billing rules for all of the Carrier/Service combinations and their service options by joining the following tables on CarrierID, ServiceID, and ServiceOptionID: BillingOption; BillingOptionAndService; BillingOptionAndServiceOption 3021.

25 For each carrier 3022, the System performs the following procedures: 1) determine if the particular carrier supports the given billing option based on step 2 3026. If not, continue with the next carrier 3027; 2) Apply carrier business rules, including: a) Calculate dimensional weight 3023; b) Determine  
30 billable weight 3024: actual weight, dimensional weight, oversize weight or letter weight; c) Validate package weight and dimensions 3025; (If the rate input violate carrier business rules 3026, continue to next carrier 3027); 3) Determine the zone ID from CarrierZone table for the given origin/destination postal  
35 codes 3028; 4) Determine service delivery times 3029 (including



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Saturday/Sunday delivery times) by joining the following tables on destination postal code: a) CarrierDeliveryArea; b) CarrierServiceDelTime; 5) Determine all service charges from CarrierRate table by RateID, ZoneID, ServiceID and Weight 3030; 6) Determine the service option charges for each Carrier/Service 3031 by joining the following tables on CarrierID and ServiceID: ServiceOption; ServiceOptionAttribute ServiceAndServiceOption; 10 and 7) Apply billing option to service option charges 3032 (different service option charges could be billed to different parties for various billing options).

As depicted in FIG. 36e, the expected delivery times for each Carrier/Service returned in the rate information determine the placement of the rate grid for the particular Carrier/Service cell: the delivery date determines the columns 3040 while the delivery time resolves the rows 3041. In the event that multiple rate entries collide 3042, the alphabetical order of the particular Carrier's name is further used to determine the Graphic Array entry order within the same date and time bucket 3043. The same Carrier/Service can be placed in a second time slot in the grid under Saturday or Sunday column 3045 if the Saturday or Sunday delivery is applicable to the particular Carrier/Service 3044.

As depicted in FIG. 37, the Consumer can indicate a preference for a guaranteed delivery time 550-552. If the Consumer is satisfied with the Comparison, the Consumer can choose a particular Carrier and Service by clicking on the corresponding cell, e.g., 549, in the Graphic Comparison Array. 30 If the Consumer is not satisfied with the Comparison, the Consumer clicks the onscreen << Back button 540. If the Consumer wants to only change the Consumer's indication of the guarantee of delivery time 550-552, the Consumer clicks the onscreen Update button 560. If the Consumer is satisfied, has chosen a

particular Carrier cell entry, e.g., 549, then the Consumer clicks the onscreen Done button 561.

5 Once the Consumer clicks the onscreen Done button 561, the Return System displays a Shipping Summary Screen, an exemplary embodiment of which is depicted in FIG. 38.

10 From the Shipping Summary Screen, the Consumer can create and print a label, as was described above in connection with FIGS. 26-27, and the Return System will generate and send thank you messages and e-mails as described above in connection with FIGS. 28-30.

15 FIGS. 39a through 39c are simplified flow diagrams depicting the initial Timing and Rating procedure to generate a Graphic Array in an exemplary embodiment of the invention. In the embodiment of the invention depicted in FIGS. 39a through 39c, the functions of the Shipper entering shipping information 1150, displaying errors to the Shipper that insufficient shipping information has been provided and prompting the Shipper for additional information 1153, and displaying the Carrier/Service rate and time graphic 1160, are all processed by the Web Browser at the Client. In the embodiment depicted, all other functions and processes depicted in FIGS. 39a through 39c are performed by one or more of the System Servers.

25 It should be noted that the depicted separation of functions between the Web Browser at the Client on the one hand and the Return System Servers on the other hand represents an initial procedure to construct the Graphic Array in response to initial Shipper input of Shipper Parcel Specifications. As is explained in more detail below, after the initial construction of the Graphic Array, the System can distribute certain of the functions for supplemental regeneration of the Graphic Array to the Web Browser Client.

30 As depicted in FIG. 39a, the Shipper (User) enters shipping information (Shipper Parcel Specifications) 1150. The System

validates the shipping information 1151.

5 In the embodiment depicted, at a minimum, the System requires Source Postal Code, Destination Postal Code, Parcel Weight, Type of Shipment, and the Shipping Location in order to determine a timing schedule and rates for each supported Carrier. If the Shipper has not provided at least these minimum specifications, then the System displays error messages 153  
10 prompting the Shipper to input further Shipper Parcel Specifications 1150.

If the Shipper has supplied the minimum required specifications, then the System accesses the Shipper Database 1195 to identify any user-specified Carrier designations and to  
15 determine the Carrier accounts for the appropriate Shipper 1154. Using the Shipper Parcel Specifications, the System then accesses the Carrier Databases (1404a through 1404n) and determines all possible Carrier/Services that support shipping of the subject parcel 1155.

20 It should be noted that in some embodiments, the Shipper can restrict the identity of Carriers to be used in the construction of the Graphic Array. A Shipper may choose to restrict the System to certain Carriers, for instance, if the Shipper prefers to work only with certain Carriers.

25 The System then examines each Carrier/Service in the set of supporting Carrier/Services 1156. The next step 1157 is a juncture for return of control from a number of points in the System logic and is performed for each Carrier/Service in the set  
30 of supporting Carrier/Services.

If the System has examined all possible supporting Carrier/Services 1158, the System assembles the Graphic Array from the delivery rate set 1159 and displays the Graphic Array to the user 1160. As was previously explained, the dimensions of the  
35 Graphic Array are dynamic.

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As long as there are further Carrier/Services that remain to be examined in the set of supporting Carrier Services, the System continues to perform the process described below.

Using the Expected Shipping Date, the System switches the Carrier/Service's shipping timespan into possible delivery dates and times 1161. Next 1162, the System determines whether the shipping timespan ends on a Saturday 1163. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports Saturday Delivery 1164. If the particular Carrier/Service does not support Saturday Delivery, then the particular Carrier/Service is eliminated 1177 from the delivery rate set and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports Saturday Delivery, the System determines the appropriate Saturday delivery rate for the particular Carrier/Service 1165.

Next, the System determines whether the shipping timespan ends on a Sunday 1168. If the shipping timespan ends on a Sunday, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports Sunday delivery 1166. If the particular Carrier/Service does not support Sunday delivery, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports Sunday Delivery, the System determines the appropriate Sunday delivery rate for the particular Carrier/Service 1167.

The System then determines whether there is a business day delivery within the shipping timespan 1169. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports business day

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delivery 1170. If the particular Carrier/Service does not support business day delivery, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports business day delivery, the System determines the appropriate business day delivery rate for the particular Carrier/Service 1171.

The System next determines whether the Shipper has requested E-Mail delivery notification 1172. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports E-Mail delivery notification 1173. If the particular Carrier/Service does not support E-Mail delivery notification, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports E-Mail delivery notification, the System adds the appropriate charge for the E-Mail delivery notification service to each of the particular Carrier/Service's delivery rates 1174.

The System then determines whether the Shipper has requested verbal delivery notification 1175. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports verbal delivery notification 1176. If the particular Carrier/Service does not support verbal delivery notification, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

35

If the particular Carrier/Service supports verbal delivery notification, the System adds the appropriate charge for the verbal delivery notification service to each of the particular Carrier/Service's delivery rates 1178.

Next 1179, the System determines whether the Shipper has requested that the Carrier/Service guarantee delivery time 1180. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports guaranteed delivery times 1181. If the particular Carrier/Service does not support guaranteed delivery times, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports guaranteed delivery times, the System adds the appropriate charge for the guaranteed delivery times service to each of the particular Carrier/Service's delivery rates 1182.

The System then determines whether the Shipper has requested a "Call for Pickup" shipping location 1184. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports "Call for Pickup" services 1185. If the particular Carrier/Service does not support "Call for Pickup" services, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

If the particular Carrier/Service supports "Call for Pickup" services, the System adds the appropriate charge for the "Call for Pickup" service to each of the particular Carrier/Service's delivery rates 1186.

The System next determines whether the Shipper has requested a "Residential Delivery" 1187. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the

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particular Carrier/Service supports "Residential Delivery" services 1188. If the particular Carrier/Service does not support  
5 "Residential Delivery" services, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

10 If the particular Carrier/Service supports "Residential Delivery" services, the System adds the appropriate charge for the "Residential Delivery" service to each of the particular Carrier/Service's delivery rates 1189.

15 The System then determines whether the Shipper has requested a "Loss Protection" services 1190. If so, the System accesses the Carrier Database (1404a through 1404n) to determine whether the particular Carrier/Service supports "Loss Protection" services 1191. If the particular Carrier/Service does not support  
20 "Loss Protection" services, then the particular Carrier/Service is eliminated from the delivery rate set 1177 and the System proceeds with the next Carrier/Service in the delivery rate set 1157.

25 If the particular Carrier/Service supports "Loss Protection" services, the System calculates the appropriate charge for the "Loss Protection" service and adds the appropriate charge to each of the particular Carrier/Service's delivery rates 1193 before proceeding with the next Carrier/Service in the delivery rate set 1157.

30 In the exemplary embodiments of the invention described here, the System automatically and dynamically regenerates the display of the Graphic Array and certain portions of other screens when the Shipper makes online changes to Shipper input. To do this, the System generates executable code which it distributes with certain displayable frames to the Web Browser Client. This distribution of code for purposes of regenerating  
35 the Graphic Array differs from the initial generation of the

Graphic Array as was described above. For example, in the embodiment of the invention depicted in FIGS. 39a through 39c, in the initial development of the Graphic Array, the System distributes the functions that initially generate the Graphic Array as follows: the Shipper entering shipping information 1150, displaying errors to the Shipper that insufficient shipping information has been provided and prompting the Shipper for additional information 1153, and displaying the Graphic Array 1160, are all processed by the Web Browser at the Client; all other functions and processes depicted in FIGS. 39a through 39c are performed by one or more of the System Servers.

Distribution to the Web Browser Client by the System of executable code that regenerates the Graphic Array provides the capability to dynamically reflect in the Graphic Array any changes that the Shipper may enter to the various Shipper Parcel Specifications; the Graphic Array immediately displays the new information without requiring the Shipper to request a recalculation, such as by clicking on a "Regenerate" button or the like.

To facilitate regeneration of the Graphic Array, the System generates executable code which it distributes with the frame, such as the frame that is displayed to the user for collecting the Parcel Specifications, to the Web Browser Client. A displayable frame is a set of information for display on the client display device. For example, in FIG. 36a, in one embodiment of the invention, a first frame of the screen depicted in FIG. 36a comprises the Title "Rates & Times" 1109a, the instruction "Click on the price to select a delivery date, time and carrier." 1109b, the legend "Date you expect to ship your package:" 1109c, the input field for the Expected Shipping Date 1060, the legend "I'll ship the package from:" 1109d and the input field for the Shipping Location 1066; a second frame of the screen depicted in FIG. 36a comprises the Graphic Array.



As the System generates the display of each frame, the System generates executable code which it distributes with, e.g., the Rate & Times frame, to the Web Browser Client. Thereafter, the Web Browser Client uses the executable code to automatically regenerate the display of the Graphic Array each time the Shipper makes changes to the Shipper Parcel Specifications. In one embodiment of the dynamic regeneration aspect of the invention, the executable code distributed to the Web Browser Client uses JavaScript.

In some cases, the executable code sent to the Web Browser Client provides the information and the capability to regenerate the Graphic Array without any further communication with the Server. In other cases, the Web Client Browser must return control to the Server so that the Server can access data maintained by or accessible by the Server; the Server then regenerates the Graphic Array or otherwise provides the Web Browser Client with the information necessary to regenerate the Graphic Array.

In an exemplary embodiment of the automatic dynamic regeneration aspect of the invention, the executable code distributed to the Web Browser Client contains the logic to apply Carrier Rules to Shipper Parcel Specification changes. For instance, Shipper changes to certain Service Options, e.g., 550-552 as depicted in FIG. 37, would be automatically processed by the Web Client Browser and the Web Client Browser would regenerate the Single Day Rate Graphic Array depicted therein to reflect the Shipper changes. In one such automatic dynamic regeneration embodiment, only those functions that do not require further access to the relevant Carrier's database are distributed to the Web Browser Client.

It should be noted that, according to the automatic dynamic regeneration aspect of the invention, if after the Shipper views the Graphic Array the Shipper enters changes to any of the

factors with which the System calculates the rates and develops the Graphic Array, the System uses a similar logic flow to regenerate the Graphic Array as was explained above in relation to FIGS. 39a through 39c.

The dynamic regeneration capability is used to automatically regenerate response screens in many places throughout the System. For instance, as was mentioned above, as in the case of FIG. 36a, if the Shipper changes Origin Zip Code and/or Ship Location Type, the System will automatically regenerate a list of possible Drop Off Location choices.

### C. CONSUMER TRACKING

Once the Consumer has shipped a return package, the Consumer can track the shipment through the Merchant's online store. FIG. 40 depicts an Items Ordered Screen. By clicking on the Track your package link 405, the Consumer can track the package associated with the described item. FIG. 41 is a graphic representation of a Tracking Information Screen depicting status information about the tracked package.

FIGS. 42-45 depict an alternative Consumer Tracking embodiment in which clicking the Track your package link 405 as depicted in FIG. 42 generates a Track Your Package screen as depicted in FIG. 43. The Track Your Package Screen provides a window in which to collect a Tracking Number 601. As depicted in FIG. 44, the Consumer enters a Tracking Number 601 and clicks the onscreen Submit button 602 to track the package. Clicking the onscreen Close button 603 closes the Track Your package screen. Clicking the submit button 602 generates the display of a Tracking Information Screen as depicted in FIG. 45. The Tracking Information Screen as depicted in FIG. 45 provides a further Tracking Number collection window 601 and a Submit button 602 for tracking additional packages.

D. MERCHANT TRACKING

Returning to FIG. 7, if the Merchant clicks the View Inbound  
 5 Return Shipments 116, the Return System displays a View Inbound  
 Return Shipments Screen, an exemplary embodiment of which is  
 depicted in FIG. 46. As depicted in FIG. 46, the Inbound Return  
 Shipments Screen provides the Merchant/User with the ability to  
 select the Display format 620, the Date range for the report 622,  
 10 and Sorting criteria 624. Each of the tracking criteria, 620,  
 622, and 624, provides a pull down menu button, e.g., 621, 623  
 and 625 respectively, with which the Merchant/User can view a  
 pull down menu of choices. An exemplary menu for each of the  
 choice types is depicted in FIG. 47 and is discussed further  
 15 below.

Continuing with FIG. 46, the Inbound Return Shipments Screen  
 reports all inbound shipments that meet the Merchant/User's  
 specified tracking criteria in the order specified by the  
 Merchant/User. Each entry in the report identifies the person  
 20 from whom the item is being returned 627, the Service and Carrier  
 with which the item is being shipped 628, the ship date 629, the  
 delivered or expected delivery date 630, the destination 631, a  
 Status 632, a Tracking number 633 and a link with which the  
 Merchant/User can view Details 640. The Merchant/User can  
 25 refresh the Screen by clicking an onscreen Update View button  
 626.

FIG. 47 is a table representing exemplary menus for each of  
 the tracking criteria. As depicted in FIG. 47, the Display  
 format tracking criteria menu 620 provides the Merchant/User with  
 30 the ability to request reporting of All Returns 620-1, or to  
 limit the report to items that have the status of: Delivered 620-  
 2, Exceptions 620-3, In-transit 620-4, or Return Requested 620-5.

The Expected Delivery Date criteria menu 622 provides for  
 35 selections of Today 622-1, in 2 days 622-2, in 3 days 622-3, in  
 4 days 622-4, in 5 days 622-5, in 6 days 622-6, in 7 days 622-7,

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this week 622-8, in the next 7 days 622-9, and in the next 14 days 622-10.

5 The Merchant/User can choose to sort the reported items 624, by Attention 624-1, Carrier 624-2, Company 624-3, Service 624-4, Ship Date 624-5, and Status 624-6.

10 FIG. 48 is a graphic representation of a View Inbound Return Shipments Detail Screen. The Detail Screen reports Tracking Information 650, Return Information 660, and Original Order Information 670. The Merchant/User clicks the View Inbound Return Shipments link 680 to return to the View Inbound Return Shipments Screen.

15 Returning to FIG. 7, if the Merchant/User clicks the Reporting, Graphs, and Data Export link 117, the Return System displays a Reporting, Graphs and Data Export Generation Screen, an exemplary embodiment of which is depicted in FIG. 49. The Merchant/User can choose by clicking on the appropriate keywords on the screen to report by SKU 700; status 701 (such as Requested 20 701-1, in-transit 701-2, or delivered 701-3); Carrier 702; dollars 703 (item price 703-1, tax 703-2, or total 703-3); return reasons 704 (total count 704-1, or list all 704-2); return center 705 (online 705-1, or offline 705-2); paid by merchant 706; paid by customer 707; or customer ID 708.

25 The Merchant/User can define reporting time slices 709, such as, for example, a particular date 709-1, a date range 709-2, current day 709-3, last day 709-4, next day 709-5, current week 709-6, current month 709-7, a quarter 709-8, or a year 709-9. The time slices 709 described are illustrative and are not a 30 limitation of the invention. Other time slices can be provided without departing from the spirit of the invention.

The Merchant/User can click on graph of reports 710 to display graphs of the returns that match the criteria selected. 35 The Merchant/User can click on Export 711 to export a report to a file, other systems, etc.

ILLUSTRATIVE EMBODIMENTS

5 Although this invention has been described in certain  
specific embodiments, many additional modifications and  
variations would be apparent to those skilled in the art. It is,  
therefore, to be understood that this invention may be practiced  
otherwise than as specifically described. Thus, the embodiments  
10 of the invention described herein should be considered in all  
respects as illustrative and not restrictive, the scope of the  
invention to be determined by the appended claims and their  
equivalents rather than the foregoing description.

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